OKINAWA FIRING RANGE NOISE IMPACT STUDY

Okinawa, Japan

Siebein Associates conducted a sound assessment and analysis for expansion of range activities and construction for new ranges. Design criteria for off-site noise propagation were established by the military. The ranges were to be used for Special Forces firearms training activities. A combination of acoustical measurements at similar training facilities, computer model studies of proposed activities, and model calibration studies conducted in the field were used to evaluate proposed designs. Acoustical measurements of typical busy day training activities were recorded at for Army Special Forces operations at an existing facility. The acoustical data from the actual training activities were used in 4 different computer models to estimate sound levels at various locations around the proposed facility as affected by distance, topography and vegetation. Sophisticated military noise prediction programs were also used to independently estimate noise contours based on the projected number of personnel, rounds per day and weapons used in the training exercises. Methods to reduce sound levels were evaluated as well in a series of optimization studies.







CITY OF VIRGINIA BEACH FIRING RANGE

Virginia Beach, Virginia

Siebein Associates worked with city and police personnel, and residents to conduct a sound assessment and analysis of existing firing range noise on nearby communities. A computer model study was constructed using the SA Environmental Analysis program of design alternatives to provide recommendations for mitigation.



MAUMEE POLICE AND FIRE TRAINING FACILITY Maumee, Ohio

Siebein Associates conducted a sound assessment and analysis for the proposed Maumee Fire and Police Training Facility to determine the noise impact of firearms training activities on the surrounding communities. Acoustic measurements were made at the proposed site and in the surrounding community of police officers firing shotguns and pistols at the site of the proposed Firing Range. Noise mitigation strategies were presented.



BLALOCK LAKES CLAY PIGEON RANGE NOISE STUDY Blalock, Georgia

Siebein Associates, Inc. conducted a sound assessment and analysis to determine noise mitigation strategies to reduce noise associated with clay pigeon shooting events at an adjoining residential property.







UNITED STATES CAPITOL POLICE PRACTICAL APPLICATIONS CENTER Cheltenham, Maryland

Siebein Associates conducted a sound assessment and analysis to establish acoustical design criteria for background noise levels from building and simulation equipment; selection of room finish materials; sound isolation between critical spaces; acoustical measurements and analysis to determine occupational hearing loss issues relative to the range usage by instructors and students during firearms training.

CASEYVILLE RIFLE AND PISTOL CLUB

Masacoutah, Illinois

Constructed a computer model for proposed shooting range to produce noise contours for the projected number and types of weapons to be used at the new range.

MONTGOMERY COUNTY WEAPONS TRAINING CENTER

Conshohcken, Pennsylvania

Conducted acoustical analysis and design recommendations to reduce noise from gun fire within the firing range and reduce the transfer of gun fire noise to the Fire Academy classrooms and adjoining properties.

ROCKVILLE POLICE ACADEMY FIRING RANGE

Rockville, Maryland

Conducted acoustical analysis and design recommendations for the construction of a new firing range to allow for simultaneous use with adjacent offices and nearby classrooms. Acoustical measurements were taken of firearms training in the existing range to estimate noise impact at nearby receiver properties and to recommend acoustical upgrades to the construction of the building envelope.

AIS QUICK STUDY

Las Vegas, Nevada

Conducted acoustical analysis of sound levels of Quick Range structures in the Control Room and just outside the Range to determine compliance with the performance criteria based on OSHA and NIOSH permissible sound level limits. A computer model was constructed to study alternate range sizes to determine equivalent sound levels with substitute sizes and materials used for the ranges.

RHINO OUTDOOR OPEN GUN RANGE

Williston, Florida

Conducted sound assessment and analysis of shotgun blast noise from the Rhino Outdoors open gun range at the property line of adjacent and nearby residences and businesses to determine the extent to which the noise exceeds the noise level limit described in the Levy-County Code of Ordinances.

MARINE RECRUIT TRAINING FACILITY

Parris Island, South Carolina

Provided acoustical design of a U.S. Marine Corps Large Group Training Facility at Parris Island, South Carolina including room acoustic design, sound isolation for large public restrooms and mechanical equipment and interface with Marine audio-visual systems.

CITY OF PHOENIX POLICE TRAINING FACILITY

Phoenix, Arizona

Conducted acoustical analysis and design recommendations for existing outdoor and indoor firing ranges proposed for a major expansion of this large facility in suburban Phoenix.

DUVAL COUNTY SHERIFF'S OFFICE FIRING RANGE NOISE IMPACT STUDY Jacksonville, Florida

Conducted acoustical measurements at existing indoor and outdoor firing ranges. Determined existing and future noise impact for expansion of outdoor ranges. Investigated enclosed and partially enclosed options for range development to minimize noise impact on nearby residences.

MANASSAS PARK NEW POLICE STATION INDOOR SHOOTING RANGE Manassas Park, Virginia

Conducted acoustical analysis and design recommendations to reduce sound from fire arms in the firing range on the ground floor to offices above and to the side of the range. Conducted computer model studies using the SA Environmental Analysis program of design alternatives to proved recommendations for noise mitigation.

FLORIDA DEPARTMENT OF LAW ENFORCEMENT HEADQUARTERS

Tallahassee, Florida

Conducted acoustical measurements and design for indoor firing ranges located in close proximity to the Director's Office and other noise sensitive locations in this major headquarters facility for a large law enforcement agency.

SELECTED RELEVANT PUBLICATIONS

Field Measurements of Sound Pressure levels of Various Firearms

Research to document methods and a digital data acquisition system to record peak pressure levels, sound exposure levels and other metrics of interest produced by a variety of firearms. A catalog of peak pressure levels and octave band sound exposure levels for various firearms was produced to aid the NRA in assessing noise impacts of range facilities.

Field Measurement of the Insertion Loss of Earth Berms

Field measurements of the insertion loss of earth berms surrounding outdoor firing ranges were compared with estimates of insertion loss calculated by a variety of methods in the literature. Advantages and disadvantages of various computational methods and field measurement techniques were evaluated. Presented to the National Rifle Association.

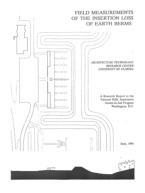
Preliminary Acoustical Analysis of Existing Indoor Firing Ranges

Research presented to the National Rifle Association (NRA) to document methods to accurately measure impulsive sounds produced by firearms; develop acoustical design guidelines for indoor firing ranges including transmission loss of wall, floor and ceiling assemblies and interior finish materials; and present case studies of the acoustical design of ranges.

"Project Design Phase Analysis Techniques to Evaluate the Acoustical Environment of Buildings and Listening to Buildings"

Developed a multi-channel digital data acquisition system to compute acoustical metrics based on impulse response theory to assess interior and exterior situations as part of 10 years of work. The system was used successfully in full size environments as diverse as concert halls, construction sites and firing ranges. It was also used in scale model studies of interior acoustical qualities in concert halls and exterior sound propagation in police training facilities. Impulse responses acquired in the field were also convolved or mixed with recorded sounds to present aural simulations of sounds as they were heard in complex environments. Case studies comparing full size and scale model measurements in actual design situations were presented. Presented to the National Science Foundation.







Department of Natural Resources Analysis of Acoustical Improvements Allegan State Game Area November 1, 2021 Echo Point Shooting Range Allegan, Michigan

RESUMES OF SENIOR STAFF

Please see next pages.

SIEBEIN ACOUSTIC ARCHITECTURALI ENVIRONMENTAL



Gary W. Siebein, FASA, FAIA, NCARB Senior Principal Consultant

AREAS OF EXPERTISE

Soundscape Planning and Design, Environmental Noise; Architectural Acoustic Design of Indoor and Outdoor Performance Spaces; Mechanical System Noise & Vibration Control

EDUCATION

M.A. (Architecture), 1980 University of Florida

Bachelor of Architecture, 1978 Rensselaer Polytechnic Institute

B.S. (Building Science), 1972 Rensselaer Polytechnic Institute

REGISTRATION

Registered Architect Florida # 8846
Registered Architect Georgia #RA014816
NCARB # 86214

AFFILIATIONS

Fellow, American Institute of Architects Fellow, Acoustical Society of America Member, NCAC Member, ASTM Member, ASHRAE

PROFESSIONAL EXPERIENCE 40 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 16 gsiebein@siebeinacoustic.com

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Gary W. Siebein, founder of Siebein Associates, has over 40 years' extensive experience in soundscape planning and design of communities and urban areas, acoustical design of performance spaces, environmental noise and assessment, human and community response to noise, and developing instrumentation for the measurement, monitoring and analysis of sounds in communities in the ways in which they are heard by people. He has completed work on over 2,300 projects worldwide for many clients including the NSF and other governmental agencies as well as clients in the private and public sectors. He is also a Professor Emeritus of the School of Architecture at the University of Florida where he directed a graduate program in building and environmental acoustics for 35 years. He is an international leader in acoustic and soundscape research. He has written five books, 16 book chapters, and over 200 technical papers and monographs in architectural and environmental acoustics that have been presented at regional, national and international professional society meetings.

Gary W. Siebein has consulted for military and law enforcement training facilities for over 40 years. He has designed methods to accurately measure, model and predict the effects of impulsive sounds such as gunfire and demolition blasts associated with military and police training activities on adjoining properties as part of environmental assessment and ICUZ processes. He has worked with the military, federal, state and local law enforcement agencies to develop comprehensive cost effective noise management plans for training facilities. This work has included design of baffled ranges, fully enclosed ranges, conducting community workshops and large scale experiments on sites to demonstrate acoustic effects of noise mitigation, computer modeling of noise contours, and auralization of sounds as they are heard at neighboring properties. He consults with communities to develop practical noise ordinances and is currently serving on an ANSI working group to develop a model community noise ordinance. He also serves on ASTM Committee E33 on Environmental Acoustics which develops testing standards for building and environmental acoustics.

EXPERIENCE

- Principal Consultant, Siebein Associates (1981-present)
 - Acoustical consulting commissions in private practice, including space shaping of theaters, interior and exterior noise control, mechanical system noise control, and sound system design.
- Faculty Member (Professor), University of Florida (1980-2015)
 - ♦ University Research Foundation Professor (1999-2002)
 - Director, Architecture Technology Research Center (1985-2015)
- Architectural design work in several small firms in southwestern Connecticut (1972-1980)

- Albemarle Public Safety Training Facility Indoor and Outdoor Firearms Ranges, Roanoke, VA
- Blalock Lakes Clay Pigeon Range Noise Study, Blalock, GA
- Camp Lejeune USMC Firing Ranges, Camp Lejeune, NC
- Caseyville Outdoor Rifle and Pistol Club, Masacoutah, IL
- City of Omaha Outdoor Public Safety Training Center, Omaha, NE
- City of Phoenix Police Indoor and Outdoor Firing Ranges, Phoenix, AZ
- City of Virginia Beach Outdoor Firing Range, Virginia Beach, VA
- Clearwater Police Department Partially Enclosed Firing Range, Clearwater, FL
- Department of Defense Outdoor Firing Ranges, VA
- Dubuque County Sheriff's Outdoor Range, Dubuque, IA
- Duncan Farms Outdoor Firing Range, Beaufort County, SC
- Duval County Sheriff's Office Indoor and Outdoor Firing Ranges Noise Impact Study, Jacksonville, FL
- Everglades Youth Ranch Outdoor Firing Range, Palm Beach, FL
- FBI Indoor and Outdoor Firing Ranges Acoustical Study, Quantico, VA
- FBI Proposed 500 Yard Precision Rifle Deck Environmental Acoustic Assessment, Quantico, VA
- Federal Law Enforcement Indoor and Outdoor Training Center Firing Ranges, GA, MD, SC
- Georgia Department of Natural Resources Union County Outdoor Shooting Ranges, Blairsville, GA
 Island Lake Outdoor Recreational Shooting Range Noise Impact Analysis, Brighton, MI
- Maxwell Air Force Base Partially Enclosed Firing Range, Montgomery, AL
- Maumee Proposed Fire and Police Training Facility, Maumee, OH
- McConnell AFB Combat Arms Training Facility, Wichita, KS
- Michigan Department of Natural Resources Statewide Outdoor Firing Ranges, MI
- Pedlar Mountain Wildlife Management Area Shooting Range, Monongalia, WV
- Rhino Outdoor Open Gun Range, Williston, FL
- Summit County Outdoor Shooting Range, Dillon, CO
- Tampa Police Department Partially Enclosed Firing Range, Tampa, FL
- United States Army Training Complex Outdoor Firing Range, Okinawa, Japan

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Keely Siebein, ASA, INCE, LEED AP BD+C Senior Consultant

AREAS OF EXPERTISE

Architectural Acoustic Design, Environmental Noise

EDUCATION

Master of Architectural Acoustics (2012) University of Florida, cum laude

Bachelor of Arts in Theater (2007) University of Florida, cum laude

AFFILIATIONS

Member:

Acoustical Society of America (ASA); Florida Chapter ASA (FL-ASA); Institute of Noise Control Engineers (INCE); American Society of Safety Professionals (ASSP); Florida Healthcare Engineering Association (FHEA);

Florida Chapter American Institute of Industrial Hygiene (FL-AIHA);

European Cooperation in Science & Technology (COST)

PUBLICATIONS

Ms. Siebein has coauthored and edited books, papers and scientific journal articles on natural soundscapes and architectural acoustics. She has presented her published papers at ASA conventions and conducts acoustics courses as a guest lecturer at UF. Ms. Siebein develops and presents continuing education courses.

PROFESSIONAL EXPERIENCE

21 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 25 ksiebein@siebeinacoustic.com Keely has 21 years' experience in acoustical research, technical field data collection and analysis, room acoustic design, sound isolation and environmental acoustics. She has completed work on more than 380 projects for clients on a wide range of projects. She has completed research on natural, historic, and urban soundscapes, classroom acoustics, performance space acoustics, and performed critical analysis of acoustical standards.

Keely has worked on many building types including themed entertainment attractions, worship spaces, performance spaces, educational facilities, condominiums, restaurants and dining facilities performing acoustical measurements, analysis, and design of the spaces. She has also worked on a number of environmental impact projects and traffic noise studies and has proficiency with acoustical modeling software such as CATT-Acoustic, Ecotect, TMN, and CadnaA.

Keely's technical expertise is complimented by her sensitivity to design aesthetics and client needs, and she ensures there is open communication and collaboration among all parties involved with every project.

Keely is a member of the Acoustical Society of America and a member of the Florida chapter of the ASA. She received the Robert Bradford Newman award for excellence in architectural acoustical research in 2012. She was an Alternate Voting Representative for the Accredited Standards Committee on Noise – TAG TC 43/SC1 from 2009-2011.

EXPERIENCE

- Senior Consultant, Siebein Associates, Inc. 2016-present
- Consultant, Siebein Associates, Inc. 2009-2016
- Junior Consultant, Siebein Associates, Inc. 2002-2007
- Research Assistant, Siebein Associates, Inc. 1999-2002

SERVICE TO PROFESSIONAL SOCIETIES

- President: Florida Chapter of the Acoustical Society of America: 2019 present
- Chair: Council for the Model Aquatic Health Code Acoustical Design Ad Hoc Committee: 2016 -2018
- Secretary: Florida Chapter of the Acoustical Society of America: 2015 2019
- ASC Noise TAG TC 43/SC1: Alternate Voting Representative 2009 2011

AWARDS

Robert Bradford Newman Award for Excellence in Architectural Acoustics: 2012

- 82nd Airborne Headquarters Building, Fort Bragg, NC
- Albemarle Public Safety Training Facility Indoor and Outdoor Firing Ranges, Roanoke, VA
- Camp Lejeune USMC Firing Range, Camp Lejeune, NC
- City of Omaha Outdoor Public Safety Training Center, Omaha, NE
- Dubuque County Sheriff's Outdoor Firing Range, Dubuque, IA
- Everglades Youth Camp Outdoor Firing Range, Palm Beach, FL
- FBI Proposed 500 Yard Precision Rifle Deck Environmental Acoustic Assessment, Quantico, VA
- Federal Air Marshals Firing Range Facility, Chicago, IL
- Homestead Air Reserve Base CATM, Homestead, FL
- JPATS Naval Training Operations Facility, Milton, FL
- McConnell AFB Combat Arms Training Facility, Wichita, KS
 - Michigan Department of Natural Resources Outdoor Shooting Ranges:
 - ♦ Grand Traverse Shooting Range, Grand Traverse County, MI
 - ♦ Allegan & Barry State, Allegan & Barry Game Areas, MI
 - Lapeer Range, Grand Traverse County, MI
 - ♦ Marquette Range, Grand Traverse County, MI
- Orlando Police Department Gun Range Noise Study, Orlando, FL
- Patrick Air Force Base Firing Range, Patrick AFB, FL
- Tampa Police Department Partially Enclosed Firing Range, Tampa, FL
- Zenith Quest Indoor Firing Range, Afton, VA



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Gary Siebein Jr., CTS, AVT Consultant

PROFESSIONAL EXPERIENCE 12 Years

AREAS OF EXPERTISE

Acoustical Measurements Environmental Noise Sound System Design

CERTIFICATIONS

Certified Technology Specialist
Infocomm Audio Visual Technologist
Audinate Dante Certification Level 1
Cambridge Qt Pro Certified Masking Expert
Dynasound Pro Certified Masking Expert

AFFILIATIONS

Member, Florida Chapter of the Acoustical Society of America

PUBLICATIONS

Gary has co-authored many papers on the subject of environmental acoustics and has presented published papers at regional and national acoustics meetings.

PROFESSIONAL EXPERIENCE 12 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 19 gary@siebeinacoustic.com Gary has 12 years' experience consulting with Siebein Associates and has worked on more than 300 projects. He is a member of Siebein Associates' A/V Design Team where his expertise and certifications in sound system and A/V design allows him to design functional and practical sound, audio and video systems in performing arts centers, religious facilities, educational facilities, theme parks and many other building types.

Gary is also a key member of our environmental noise team, leading many environmental noise impact studies in the field. His technical dexterity and extensive experience allow him to operate specialized equipment and advanced digital software under any conditions to gain insight into custom sound mitigation techniques and design solutions.

He is fluent on many sound level meters including meters by Larson Davis, B+K, Cesva, Rion and Ivie. He is proficient in architectural/acoustic software programs including AutoCAD, TNM, SARNAM, WinMLS, and EASE.

He has worked on various building types including worship spaces, performance halls, firing ranges, educational facilities, amusement park attractions, condominiums, and hospitals, as well as been involved on environmental impact projects and traffic noise studies.

EXPERIENCE

- Siebein Associates, Inc. Consultant (2016 present)
- Siebein Associates, Inc. Technical Acoustic Specialist (2010 2016)
- Siebein Associates, Inc. Junior Consultant (2008 2010)

- Albemarle Public Safety Training Facility Indoor and Outdoor Firing Ranges, Roanoke, VA
- Camp Lejeune USMC Firing Ranges, Camp Lejeune, NC
- City of Omaha Outdoor Public Safety Training Center, Omaha, NE
- Clearwater Police Department Partially Enclosed Firing Range, Clearwater, FL
- Dubuque County Sheriff's Outdoor Firing Range, Dubuque, IA
- Duncan Farms Outdoor Firing Range, Tampa, FL
- Eglin Air Force Base Security Renovation Building, Eglin Air Force Base, FL
- Everglades Youth Camp Outdoor Firing Range, Palm Beach, FL
- Fort AP Hill Indoor Firing Range, Fort AP Hill, VA
- Georgia Department of Natural Resources Union County Outdoor Shooting Ranges, Blairsville, GA
- JPATS Naval Training Operations Facility, Milton, FL
- Little Creek Navy Seal Firing Range, Norfolk, VA
- Loudon County Indoor Firing Range, Ashburn, VA
- Michigan Department of Natural Resources Outdoor Firing Ranges:
 - Grand Traverse Shooting Range, Grand Traverse County, MI
 - ♦ Allegan & Barry State, Allegan & Barry Game Areas, MI
 - ♦ Lapeer Range, Grand Traverse County, MI
 - ♦ Marquette Range, Grand Traverse County, MI
- Norfolk Naval Station Veterinary Replacement Facility, Norfolk, VA
- Palmetto Bluff Outdoor Shooting Range, Bluffton, SC
- Patrick Air Force Base Firing Range, Patrick AFB, FL
- Summit County Outdoor Shooting Range, Dillon, CO
- Troy Acoustics General Instrumentation, Gainesville, FL
- US Army Rowe Training Facility, Fort Bragg, NC
- Zenith Quest Indoor Firing Range, Afton, VA





Marylin Roa, AIA, ASA, INCE Senior Consultant

AREAS OF EXPERTISE

Architectural Acoustic Design Mechanical System Design Environmental Noise

EDUCATION

Master of Architecture (2014) University of Florida

Bachelor of Architecture (2012) Florida International University

REGISTRATION

Registered Architect Florida # AR100453

AFFILIATIONS

Member, American Institute of Architects Member, Acoustical Society of America Member, Institute of Noise Control Engineering

PUBLICATIONS

Marylin has co-authored papers on the subject of architectural acoustics and computer modeling systems and has presented published papers at regional and national acoustics meetings.

PROFESSIONAL EXPERIENCE

7 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 14 mroa@siebeinacoustic.com

ARCHITECTURAL AND ENVIRONMENTAL ACOUSTICS

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Marylin designs creative solutions to acoustical challenges faced in more than 30 building types. The acoustical assessment of multiple project types allows her to be involved in the acoustical design of sensitive performance venues for music and theater, quiet background noise levels for recording studios, and creating graphic acoustical 3-D modeling of loud noise generating sources to determine their noise impact on buildings and the environment. By being able to determine applicable regulations and ordinances for each project type, Marylin can interpret the acoustical measurements made on site as well as virtually in computer models and provide recommendations that meet design criteria and provide comfortable acoustic environments.

Marylin's ability to visualize space and sound three-dimensionally helps her have clear conversations with owners, architects, engineers, and contractors. Marylin has been immersed in more than 355 projects during her time with Siebein Associates and is experienced in all phases of project management, from schematic design through construction. She actively participates in project meetings, clearly communicating acoustical design goals and acoustical recommendations to designers, owners, user groups and project stakeholders. Marylin consistently applies her skills and experience to find creative acoustic solutions for her projects and excels in providing acoustic design and analysis for critical acoustic spaces.

She is proficient in many architectural/acoustic software programs including EASE, INSUL, AutoCAD, Revit, Trane, VA Select, Ibana Calc, Cope Calc, TNM, CadnaA, CATT Acoustic, and Photoshop.

EXPERIENCE

- Consultant, Siebein Associates Inc. (2014 present)
- Intern Consultant, Siebein Associates Inc. (2014)
- Graduate Teacher Assistant, University of Florida (2013 2014)
- Freelance Designer, NV Capital Partners LLC (2012 2014)
- Photographer and Web Designer, Frost Art Museum, Florida Atlantic University (2011)
- Digital Lab Supervisor, School of Architecture, Florida International University (2009-2011)
- Professional Photography, Darimar Inc. (2006 2007)

SPECIAL ACHIEVEMENTS

- Robert Bradford Newman Award for Excellence in Architectural Acoustics (2014)
- Architecture MRP Design Honor Award, University of Florida(2014)
- Architecture Academic Excellence Award, University of Florida (2014)
- Architecture Academic Achievement, University of Florida (2013)

- Albemarle Public Safety Training Facility Firearms Ranges, Roanoke, VA
- Allegan Echo Point Shooting Range, Allegan Game Area, MI
- City of Omaha Outdoor Public Safety Training Center, Omaha, NE
- Clearwater Police Partially Enclosed Firing Range, Clearwater, FL
- Dubuque County Sheriff's Outdoor Firing Range, Dubuque, IA
- Everglades Youth Camp Outdoor Firing Range, Palm Beach, FL
- Fort AP Hill Indoor Firing Range, Fort AP Hill, VA
- Georgia Department of Natural Resources Union County Outdoor Shooting Ranges, Blairsville, GA
- JPATS Naval Training Operations Facility, Milton, FL
- Loudon County Indoor Firing Range, Ashburn, VA
- McConnell AFB Combat Arms Training Facility, Wichita, KS
- Michigan Department of Natural Resources:
 - ♦ Grand Traverse Shooting Range, Grand Traverse County, MI
 - ♦ Allegan & Barry State, Allegan & Barry Game Areas, MI
 - ♦ Lapeer Range, Grand Traverse County, MI
 - Marquette Range, Grand Traverse County, MI
- Palmetto Bluff Shooting Range, Bluffton, SC
- Patrick Air Force Base Firing Range, Patrick AFB, FL
- Pedlar Mountain Wildlife Management Area Shooting Range, Monongalia, WV
- Summit County Outdoor Shooting Range, Dillon, CO
- Tampa Police Department Partially Enclosed Firing Range, Tampa, FL
- USAF CATM Firing Range, Homestead, FL
- Zenith Quest Firing Range, Afton, VA



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Jennifer Miller, Assoc. AIA, ASA Consultant

AREAS OF EXPERTISE

Acoustical Measurements Architectural Acoustic Design HVAC Design

EDUCATION

Master of Architecture (2015) University of Florida

Bachelor of Design in Architecture cum laude (2013), University of Florida

AFFILIATIONS

Associate, American Institute of Architects Member, Acoustical Society of America

PUBLICATIONS

Jennifer has co-authored papers on the subject of architectural acoustics and natural soundscapes and has presented published papers at regional and national acoustics meetings.

PROFESSIONAL EXPERIENCE 6 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 12 imiller@siebeinacoustic.com Jennifer excels in architectural acoustic design and analysis. Having worked on more than 335 projects with Siebein Associates, Jennifer is proficient in full-cycle project management from schematic design through construction and has considerable experience in taking field measurements, analyzing data, and performing specialized acoustical analysis in many types of buildings.

Jennifer is fluent in many architectural/acoustic software programs including TAP, INSUL, Adobe Suite Programs, AutoCAD, Rhinoceros, VRay Rendering Software, Brazil Rendering Software, Grasshopper Software, Microsoft Office Programs, Ecotect, and V-A Select and is proficient in taking acoustic measurements using sound level meters by Rion, Cesva, B+K and Larson Davis.

She collaborates very well with architects, design teams and project stakeholders, carefully analyzing design criteria, and consistently creating functional and aesthetically pleasing acoustical systems in a wide variety of building acoustic and environmental noise projects.

EXPERIENCE

- Consultant, Siebein Associates, Inc. (2015-present)
- Intern Consultant, Siebein Associates, Inc. (2014-2015)
- Lunz Prebor Fowler Architects, Intern (May-August 2011, May-August 2012)
- SCMH Architects, Intern (May-August 2010)

SPECIAL ACHIEVEMENTS

- Selected as participant in the Acoustical Society of America School in Salt Lake City (2016)
- Robert Bradford Newman Award for Excellence in Architectural Acoustics (2015)

- Aberdeen Indoor Firing Range, Aberdeen, MD
- Camp Lejeune USMC Firing Ranges, Camp Lejeune, NC
- City of Omaha Outdoor Firing Range, Omaha, NE
- Clearwater Police Department Partially Enclosed Firing Range, Clearwater, FL
- Dubuque County Sheriff's Outdoor Firing Range, Dubuque, IA
- Eglin Air Force Base Security Renovation Building, Eglin Air Force Base, FL
- Fridley Police Department Indoor Firing Range, Fridley, MN
- Georgia Department of Natural Resources Union County Outdoor Shooting Ranges, Blairsville, GA
- Grand Traverse Outdoor Firing Range, Traverse City, Michigan
- Homestead Air Reserve Base CATM, Homestead, FL
- JIATFS Command Center, Key West, FL
- JPATS Naval Training Operations Facility, Milton, FL
- McConnell Air Force Base Indoor Firing Range, Wichita, KS
- Michigan Department of Natural Resources Outdoor Shooting Ranges:
 - Grand Traverse Shooting Range, Grand Traverse County, MI
 - ♦ Allegan & Barry State, Allegan & Barry Game Areas, MI
 - ♦ Lapeer Range, Grand Traverse County, MI
 - Marquette Range, Grand Traverse County, MI
- Norfolk Naval Station Veterinary Replacement Facility, Norfolk, VA
- Palmetto Bluff Outdoor Firing Range, Bluffton, SC
- Patrick Air Force Base Firing Range, Patrick AFB, FL
- Pedlar Mountain Wildlife Management Area Outdoor Shooting Range, Monongalia County, WV
- Summit County Outdoor Shooting Range, Dillon, CO
- Tampa Police Department Partially Enclosed Firing Range, Tampa, FL
- Zenith Quest Indoor Firing Range, Afton, VA



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Matthew Vetterick, AIA, NCARB Senior Consultant

AREAS OF EXPERTISE

Acoustical Measurements
Architectural Acoustic Design
Mechanical System Noise and Vibration

EDUCATION

Master of Architecture (2016), University of Florida

Bachelor of Design in Architecture summa cum laude (2014), University of Florida

Associate in Arts in Architecture (2012), Valencia College

REGISTRATION

Registered Architect Florida # AR101159 NCARB # 100758

AFFILIATIONS

Member, American Institute of Architects Member, Acoustical Society of America - Florida Chapter

PUBLICATIONS

Matthew has co-authored papers on the subject of architectural acoustics has presented published papers at regional and national acoustics meetings.

PROFESSIONAL EXPERIENCE

5 Years

CONTACT INFORMATION

625 NW 60th Street, Suite C Gainesville, Florida 32607 352-331-5111 x 10 mvetterick@siebeinacoustic.com During his time with Siebein Associates, Matthew has worked on more than 325 projects and excels in developing acoustical solutions for clients that are both efficient and aesthetically pleasing. He is experienced in all phases of project management, from schematic design through construction and collaborates perceptively with design team members and project stakeholders, consistently providing thoughtful acoustical design goals and recommendations.

He is adept in many architectural/acoustic software programs including EASE, AutoCAD, Revit, INSUL, Rhinoceros, VRay Rendering Software, Grasshopper Software, Ecotect, V-A Select, TAP (Trane Acoustic Program), Adobe Suite Programs and Microsoft Office. Matthew is also experienced in taking acoustic measurements using sound level meters by Larson Davis and Win MLS software.

Matthew is highly accomplished in performing mechanical system noise and vibration analysis and room acoustic analysis. He is experienced in taking field measurements, analyzing data, performing acoustical calculations, providing recommendations and developing thoughtful and effective acoustical details for many situations. Matthew is equally proficient onsite and in the acoustical laboratory.

EXPERIENCE

- Senior Consultant, Siebein Associates, Inc. (2021-present)
- Consultant, Siebein Associates, Inc. (2016-2021)
- Intern Consultant, Siebein Associates, Inc. (2015-2016)
- Graduate Teaching Assistant, University of Florida School of Architecture (2014-2015)
- Technology Consultant University of Florida Academic Technology (2013-2015)

SERVICE TO PROFESSIONAL SOCIETIES

- AIA Gainesville Chapter, Vice President (2021-present)
- AIA Gainesville Chapter, Secretary (2020)
- AIA Gainesville Chapter, Interim Associate Chapter Director (2019)

SPECIAL ACHIEVEMENTS

- AIA Florida Bronze Medal for outstanding academic distinction in the study of architecture (2016)
- Featured Student Work Chicago Architecture Foundation (2010)
- The Architecture Handbook Student Design Experience
- Eagle Scout, Boy Scouts of America (2007)

- Bunnell Outdoor Firing Range, Bunnell, FL
- Camp Lejeune USMC Firing Ranges, Camp Lejeune, NC
- City of Omaha Outdoor Public Safety Training Center, Omaha, NE
- Dubuque County Sheriff's Outdoor Firing Range, Dubuque, IA
- · Georgia Department of Natural Resources Union County Outdoor Shooting Ranges, Blairsville, GA
- Homestead Air Reserve Base CATM, Homestead, FL
- JPATS Naval Training Operations Facility, Milton, FL
- Michigan Department of Natural Resources Outdoor Firing Ranges:
 - ♦ Grand Traverse Shooting Range, Grand Traverse County, MI
 - ♦ Allegan & Barry State, Allegan & Barry Game Areas, MI
 - Lapeer Range, Grand Traverse County, MI
 - ♦ Marquette Range, Grand Traverse County, MI
- McConnell Air Force Base Indoor Firing Range, Wichita, KS
- Palmetto Bluff Outdoor Firing Range, Bluffton, SC
- Patrick Air Force Base Firing Range, Brevard County, FL
- Summit County Outdoor Shooting Range, Dillon, CO
- Tampa Police Department Partially Enclosed Firing Range, Tampa, FL
- Zenith Quest Indoor Firing Range, Afton, VA